

REMARKS

Entry of the Amendment Under 37 C.F.R. §1.116, filed September 10, 2004, has been requested in the Request for Continued Prosecution filed concurrently herewith. The present Amendment Under 37 C.F.R. §1.111 supplements that.

Claims 6-18, 21 and 23-29 are presently pending in this application. Of these, claims 10, 11, 14, 21, 23, and 27 are directed to a non-elected invention and so are considered withdrawn; however, claim 24 is generic, and so upon allowance of claim 24, claims 10, 11, 14, 23, and 27 will also be allowable, as will claims 6-9, 12, 13, 15-18, 24-26, and 28-29.

Claims 6-9, 11-14, 16-18, 21, 23, 24, and 27 have been amended to more particularly define the invention. Claims 28 and 29 have been added to assure Applicant the degree of protection to which his invention entitles him. Claims 4 and 5 have been canceled in the interest of expediting prosecution.

In the Final Rejection, claims 2, 4, 6-9, 12, 13, 15, 17, 18, and 24-26 were rejected under 35 U.S.C. §102(e) as being anticipated by Buckelew, et al., United States Patent No. 6,498,882. Claim 16 was rejected under 35 U.S.C. §103(a) as being unpatentable over Buckelew. Withdrawn claim 2 was canceled in the Amendment Under 37 C.F.R. §1.116. Insofar as they may be deemed to apply to the claims presently in the application, these rejections are respectfully traversed.

The Amendment Under 37 C.F.R. §1.116, which was filed in response to the Final Rejection, amended claims 4, 7-9, 18, and 24 and argued that all the claims were therefore allowable and that since generic claim 24 was allowable, withdrawn claims 5, 10, 11, 14, 23, and 27 were also allowable in this same application.

The Advisory Action, in reply to the Amendment Under 37 C.F.R. §1.116, contends that Buckelew shows a fixation section and a rearrangement section together by reference numeral 212 in Figure 7C. This contention is traversed. At column 11, lines 15-16 and lines 27-29, Buckelew refers to “transition region 212” which “reorders” the fibers. Thus, region 212 may be a rearrangement section. However, there is nothing in Buckelew about a fixation section.

The Advisory Action contends that the present application neither describes nor identifies a rearrangement section by a reference numeral. This contention is traversed. At page 23, lines 12-17, with reference to Figure 8, the specification says that an end of the fibers 205₁ to 205₅₅ is inserted into a “branching case” 207 and that the form of the fibers is returned to tapes 204₁ to 204₄. Then, at lines 18-23, the specification says that the tapes are “rearranged” in branching section 209. Thus, while the specification refers to a “branching case” and a “branching section,” it makes clear that “rearrangement” takes place within these components.

The Advisory Action contends that a rearrangement section is known and shown in the prior art depicted in Figures 1-7 of the present application. This contention is traversed. The only such section depicted in those figures is “branching case 132” shown in Figure 5. Page 4, lines 18-19 of the specification say that in branching case 132, the optical fibers are rearranged. Thus, the Examiner’s contention that the acknowledged prior art shows a “rearrangement section” appears to have some merit. However, in that event, Applicant’s contention that “branching case 207” and “branching section 209” are rearrangement sections has equal merit.

Further, even if “branching case 132” of Figure 5 is a rearrangement section, still Figure 5 does not show a fixation section.

The Advisory Action contends that a rearrangement section is not generic to all embodiments, specifically embodiments 4 and 5 of the specification. Embodiment 4 is depicted in Figures 17 and 18 of the application and described commencing at page 30, line 14. At page 32, lines 1-4, the specification says that in this embodiment branching case 507 is hollow, and no device for rearrangement of the fibers is provided. Likewise, embodiment 5 is depicted in Figures 19 and 20 and described commencing at page 33, line 3. At page 33, line 28 to page 34, line 3, the specification says that no device for rearrangement is provided. Thus, embodiments 4 and 5 do not include a rearrangement section. However, whether the application describes a rearrangement section in every embodiment is irrelevant to whether the specification describes a rearrangement section sufficiently to support the term in the claims. The disclosure of, for example, Figure 8 is sufficient support for the claims. It is also noted that there has been no rejection based on the contention that the specification does not adequately support the claims.

As exemplified by generic claim 24, Applicant’s invention is directed to an optical fiber tape which includes a fiber array adapted to be connected to an optical waveguide, a fixation section, and a tape fiber. The tape fiber includes a plurality of tape sections, each of which comprises a plurality of optical fibers. The tape sections are fixed to the fiber array. The optical fibers are separated over a portion of the tape fiber between the fiber array and the fixation section and are fixed to the fixation section. A protective tube covers the optical fibers over the portion of the tape fiber. The optical fiber tape further includes a

rearrangement section for rearranging the optical fibers. The rearrangement section is located at the fixation section or a position near the fixation section.

In one embodiment, exemplified by claim 7, the optical fibers are separated into a predetermined number of optical fiber groups which are smaller in number than the plurality of optical fibers and which are fixed to the fixation section.

In a second embodiment, exemplified by claim 21, the optical fibers are separated and arranged parallel to one another and are formed into a tape which is fixed to the fixation section.

As set out in exemplary independent claims 7, 21, and 24, the optical fiber tape includes: (1) a fiber array, (2) a fixation section, (3) a tape fiber including (4) a plurality of tape sections, each of which comprises (5) a plurality of optical fibers, (6) a rearrangement section, and (7) a protective tube.

As set forth in the Amendment Under 37 C.F.R. §1.116, Buckelew does not have, and does not suggest, both a fixation section and a rearrangement section as specified in the claims under consideration.

If, as the Final Rejection and the Advisory Action contend, Buckelew's device has a fixation section, then it lacks a rearrangement section. Alternatively, if Buckelew's device has a rearrangement section, then it lacks a fixation section.

The Final Rejection contends that Buckelew discloses a protective tube 210. However, at column 11, line 2, Buckelew states that component 210 is a "ribbonized portion," and at column 5, lines 19-39 Buckelew describes a ribbon as being optical fibers joined by a binding material, and possibly including a reinforcing layer such as Kevlar and a

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jacket material. The binding material keeps the optical fiber in ribbon form and provides structural reinforcement.

No space is provided between Buckelew's optical fibers and his binding material. Otherwise, the binding material would not keep the optical fibers in ribbon form. Thus, the binding material does not comprise a protective tube.

Clearly, Buckelew does not anticipate, and does not make obvious, the invention of independent claims 7, 21, and 24, and so these claims are allowable, as are their respective dependent claims.

Further, in Buckelew's device, it is not possible to avoid stressing of the optical fibers when they are curved. Additionally, Buckelew's device includes "singulated optical fibers" 208 which are not part of the ribbonized portion. The optical fibers of the singulated portion may be easily damage when handled.

In an exemplary embodiment of the present invention, illustratively set forth in claim 28 and described at page 27, lines 2-14 of the specification, the protective tube permits the optical fibers to freely deform and to be flexed within the protective tube, while protecting the optical fibers. Claim 28 is allowable for this additional reason.

In an exemplary embodiment of the present invention, illustratively set forth in claims 16, 27, and 29 and described at page 35, lines 5-11 of the specification, the protective tube comprises a flame retardant material. This is neither shown nor suggested by Buckelew. Claims 16, 27, and 29 are allowable for this additional reason.

In view of the foregoing, Applicant submits that claims 6-18, 21 and 23-29, all the claims presently pending in the application, are patentably distinct over the prior art of record

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and are allowable. Since generic claim 24 is allowable, withdrawn claims 10, 11, 14, 21, 23, and 27 are allowable in this same application. Applicant further submits that the application is in condition for allowance. Such action would be appreciated.

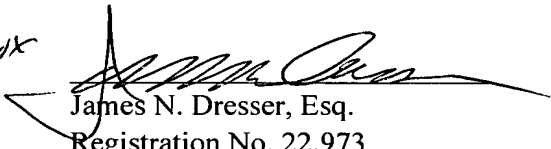
Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

To the extent necessary, Applicant petitions for an extension of time under 37 CFR §1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to Attorney's Deposit Account No. 50-0481 and please credit any excess fees to such deposit account.

Respectfully Submitted,

Date:

October 18, 200x


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